DETAILED ACTION

Claim Objections

Claim 39 is objected to because of the following informalities:

As per claim 39 line 17, applicant recites "…which is equal to a value that is the smaller the lager the distance between the two paired points". The recited portion of the claim is grammatically incorrect and should be corrected.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 20- 22 are rejected under 35 U.S.C. 102(e) as being Wenzel et al by (US PAP 2004/ 0037467), hereinafter, Wenzel.

As per claim 20, Wenzel teaches associating each point of the first contour with a point of the second contour determined as the closest (i.e., association made through matching of the template and the target curve to a match value) see for example [156], and

pairing each point of the second contour with one point of the first contour if said one point of the first contour exists (corresponding to the template or target image curve), by determining the point of the first contour which is closest (i.e., small or no difference/ distance between the curves signifying a match) from among the set of points of the first contour that are associated with said point of the second contour see [191]. [199- 200] and figure 10 of Wenzel also teaches transformation of curves (corresponding to the first and second curves with corresponding points therein) more closely matching at iterations. It is obviated and needless to say that absent the point(s) of interest on the first curve would render any pairing null. The iterations as illustrated in figure 10 followed by the convergence of the grey and black curves wherein the value of max close to 1 represents the smallest distance (i.e., closest) from the between said curves. Claim 13 also teaches approximation of said curves (i.e., template and target curve) and points thereof using similarity matrix with value and the match value as an indication of a substantial match (corresponding to the association / pairing of the point of the discrete curves) .

As per claim 21, Wenzel broadly teaches the determination of a point that is closest to a given point is based on a true or discrete measure of the Euclidean (cross correlation matrix via Euclidean) distance between the two points see [204] and figure 12.

As per claim 22 and in light of the rejections made, Wenzel broadly teaches allocating a measure of proximity Dist(M.sub.i) of each point M.sub.i of the second contour to the first contour (i.e., target and template image curve), based on the

measurement (i.e., computation of affine distance between said objects) of the

distance from this point to the point of the first contour with which it is paired see

[0204].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 23- 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Wenzel in view of Huttenlocher et al (US Patent 6249604), hereinafter, Huttenlocher.

As per claim 23 Wenzel does not teach said distance measure between two

points of a pair is a measure corrected as a function of the difference of class of

orientation.

However, Huttenlocher teaches teach said distance measure between two points

of a pair is a measure corrected as a function of the difference of class of orientation

(i.e., line spacing/ word group spacing corresponding to distance to follow the

establishment of image orientation) see column 10 lines 55- 67.

It would have been made obvious to one of ordinary skilled in the art at the time

the invention was made to incorporate the teachings of Huttenlocher into Wenzel to

determine text orientation and text lines and therefore enable subsequent processing

and spacing of the words for identification of the word shapes and recognition of the

words or symbol strings based on the shapes to further add to the efficiency and utility

of the device see column 6 line 1- 6.

As per claim 24 Huttenlocher teaches in the step of associating zero

or one points of the second contour with each point of the first contour, the

point that is closest from among the points of the second contour which have

the same class of orientation as said point of the first contour is associated

(corresponding to the establishing/ association of the word group spacing/ distance

once the orientation is set) see column 10 lines 55- 67.

Allowable Subject Matter

Claims 29- 37 are allowed.

Claims 25- 27 are objected to as being dependent upon a rejected base claim,

but would be allowable if rewritten in independent form including all of the limitations of

the base claim and any intervening claims.

Claim 39 is objected to in light of minor informalities but would be allowed if

appropriate correction is made.

Response to Arguments

Applicant's arguments filed 01/07/10 have been fully considered but they are not

persuasive.

In response to applicant's remarks on pages 10-11 wherein applicant recites

different portions of Wenzel (i.e., paragraphs [128], and [118]) as teaching the same

number of points without pointing out how said same number of points would make Wenzel different to applicant's claimed invention. It is pointed out that the first step of applicant's claimed invention claims the same teachings as Wenzel (i.e., association of each point with one point) which pertains to first and second contours respectively. Therefore it is obviated from said first step that same number of points would exist as well or else no association is made. It is also obviated that Wenzel teaches multitude of points on both curves (i.e., black and grey curves). The iterations as illustrated in figure 10 followed by the convergence of the grey and black curves wherein the value of max close to 1 represents the smallest distance (i.e., closest) from the between said curves, is indicative of a pairing process to make a match and to finally result into a convergence (corresponding to the association as claimed). Examiner interprets said closeness determination corresponding to and equivalent of iterations of the "pairing" among the set of points which is claimed. The convergence made in Wenzel is not a single step convergence and the iterations involve matching of each on point on the black curve with a point on the grey curve.

In response to applicant's remarks on page 11 wherein applicant recites "and then a pairing process...so as to choose among the points of the first contour", examiner would point out to the "choosing" feature as not being claimed through claim 20. The "choosing" which only appears in applicant's remarks is another indication of said claimed "pairing" as not being made via a single test of closeness, but an iterative one. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies

(i.e., choosing) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

It is further noted that the citation of the conditional claim langue as per second step of claim 20 to make a determination of the point of the first curve which is closest, is an indication of an iterative process to finally achieve "the univocally pairing" (see page 12 lines 1- 3 of applicant's remarks) where one point of the second contour is associated with ("only" as argued and not claimed) one point of the first contour.

Examiner also points to Wenzel and pairing (i.e., convergence) each point of the second contour with one point of the first contour if said one point of the first contour exists (corresponding to the template or target image curve), by determining the point of the first contour which is closest (i.e., small or no difference/ distance between the curves signifying a match) from among the set of points of the first contour that are associated with said point of the second contour see [191]. [199- 200] and figure 10.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Rahmjoo whose telephone number is 571-272-7789. The examiner can normally be reached on 8 AM- 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mike Rahmjoo

January 10, 2010

/Mike Rahmjoo/

Examiner, Art Unit 2624